

Application Number 10/731,867

Amendment in response to Office Action mailed September 7, 2007

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0002] of the originally-filed application with the following amended paragraph:

[0002] The following co-pending and commonly-assigned U.S. Patent Applications, filed on even date herewith, are also incorporated herein by reference in their entirety:

1. U.S. Patent Application Serial No. 10/731,869, entitled "MODULAR IMPLANTABLE MEDICAL DEVICE," to Carl D. Wahlstrand et al., and filed on December 9, 2003, ~~assigned Attorney Docket No.: 1023-318US01/P-10891.00;~~
2. U.S. Patent Application Serial No. 10/731,868, entitled "IMPLANTATION OF LOW-PROFILE IMPLANTABLE MEDICAL DEVICE," to Ruchika Singhal et al., and filed on December 9, 2003, ~~assigned Attorney Docket No.: 1023-330US01/P-11795.00;~~
3. U.S. Patent Application Serial No. 10/731,699, entitled "COUPLING MODULE OF A MODULAR IMPLANTABLE MEDICAL DEVICE," to Darren A. Janzig et al., and filed on December 9, 2003, ~~assigned Attorney Docket No.: 1023-331US01/P-11796.00;~~
4. U.S. Patent Application Serial No. 10/730,873, entitled "OVERMOLD FOR A MODULAR IMPLANTABLE MEDICAL DEVICE," to Ruchika Singhal et al., and filed on December 9, 2003, ~~assigned Attorney Docket No.: 1023-332US01/P-11798.00;~~
5. U.S. Patent Application Serial No. 10/731,881, entitled "REDUCING RELATIVE INTERMODULE MOTION IN A MODULAR IMPLANTABLE MEDICAL DEVICE," to Carl D. Wahlstrand et al., and filed on December 9, 2003, ~~assigned Attorney Docket No.: 1023-333US01/P-11797.00;~~
6. U.S. Patent Application Serial No. 10/730,878, entitled "LEAD CONNECTION MODULE OF A MODULAR IMPLANTABLE MEDICAL DEVICE," to Ruchika Singhal et al., and filed on December 9, 2003, ~~assigned Attorney Docket No.: 1023-334US01/P-11799.00;~~

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7. U.S. Patent Application Serial No. 10/730,877, entitled "LOW-PROFILE IMPLANTABLE MEDICAL DEVICE," to Darren A. Janzig et al., and filed on December 9, 2003, assigned Attorney Docket No.: 1023-335US01/P-11801-00; and
8. U.S. Patent Application Serial No. 10/731,638, entitled "MODULAR IMPLANTABLE MEDICAL DEVICE," to Carl D. Wahlstrand et al., and filed on December 9, 2003, assigned Attorney Docket No.: P-20542-00.

Please replace paragraph [0032] of the originally-filed application with the following amended paragraph:

[0032] Once positioned as desired on cranium 12 within the pocket, modular IMD 10 may then be fixed to cranium 12 using an attachment mechanism such as bone screws. The skin flap may be closed over modular IMD 10, and the incision may be stapled or sutured. The location on cranium 12 at which IMD 10 is illustrated as implanted in FIG. 2 is merely exemplary, and IMD 10 can be implanted anywhere on the surface of cranium 12. Further details regarding exemplary techniques for implanting IMD 10 on the cranium may be found in a commonly-assigned U.S. Patent Application Serial No. 10/731,868, entitled "IMPLANTATION OF LOW-PROFILE IMPLANTABLE MEDICAL DEVICE," assigned Attorney Docket No.: 1023-330US01/P-11795-00."

Please replace paragraph [0041] of the originally-filed application with the following amended paragraph:

[0041] Control module 30 includes control electronics within the housing, e.g., electronics that control the monitoring and/or therapy delivery functions of modular IMD 10, such as a microprocessor. Control module 30 may also include circuits for telemetry communication with external programmers or other devices within the housing. Housing 36 of control module 30 may be hermetic in order to protect the control electronics therein, and in exemplary embodiments is formed of a rigid material, such as titanium, stainless steel, or a ceramic. In exemplary embodiments, housing 36 is a low-profile, concave housing, and techniques for arranging components of control module 30 to enable such a low-profile, concave housing are

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described in greater detail in a commonly-assigned U.S. Patent Application Serial No. 10/730,877, entitled "LOW-PROFILE IMPLANTABLE MEDICAL DEVICE," assigned ~~Attorney Docket No. 1023-335US01 / P-11801.00.~~

Please replace paragraph [0045] of the originally-filed application with the following amended paragraph:

[0045] Modules 30, 32 and 34 can be configured in a variety of ways, and the configuration illustrated in FIG. 3 is merely exemplary. Additional exemplary configurations are described with reference FIGS. 7A and 7B below. Further, modular IMD 10 can include any number of modules, and may include other types of modules instead of or in addition to a power source module 32 and a recharge module 34. For example, modular IMD 10 can include additional power source modules, modules that include additional memory that is accessible by the control electronics within control module 30, modules that include reservoirs for storing therapeutic agents and pumps for delivering therapeutic agents to patient 14, and modules that include sensors sensing physiological parameters, such as pressures or blood flows, or the activity level of patient 12. Each such module may include a surface that is concave along at least one axis. Further details regarding additional modules for and/or configurations of modules of a modular IMD may be found in a commonly-assigned U.S. Patent Application Serial No. 10/731,869, entitled "MODULAR IMPLANTABLE MEDICAL DEVICE" assigned ~~Attorney Docket No. 1023-318US01 / P-10891.00.~~

Please replace paragraph [0049] of the originally-filed application with the following amended paragraph:

[0049] Interconnect member 44 is flexible in a plurality of directions to provide modules 30 and 32 with multiple degrees of freedom of motion with respect to each other. In exemplary embodiments, interconnect member 44 provides at least three degrees of motion, and the degrees of motion provided include rotational motion. Further details regarding the configuration and/or construction of interconnect member 44 to provide such flexibility may be found in a commonly-assigned U.S. Patent Application Serial No. 10/731,699, entitled "COUPLING MODULE OF A

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MODULAR IMPLANTABLE MEDICAL DEVICE," ~~assigned Attorney Docket No.: 1023-331US01 / P-11796.00,"~~

Please replace paragraph [0051] of the originally-filed application with the following amended paragraph:

[0051] Overmold 48 can be shaped to contour to cranium 12, e.g., may be concave along at least one axis, and may be contoured at its edges to prevent skin erosion on the scalp of patient 14. The flexibility and shape, e.g., concavity, of overmold 48 may improve the comfort and cosmetic appearance of modular IMD 10 under the scalp. Further details regarding the overmold and techniques for restricting intermodular motion in a modular IMD 10 may be found in a commonly-assigned U.S. Patent Application Serial No. 10/730, 873, entitled "OVERMOLD FOR A MODULAR IMPLANTABLE MEDICAL DEVICE," ~~assigned Attorney Docket No.: 1023-332US01 / P-11798.00,"~~ and a commonly-assigned U.S. Patent Application Serial No. 10/731,881, entitled "REDUCING RELATIVE INTERMODULE MOTION IN A MODULAR IMPLANTABLE MEDICAL DEVICE," ~~assigned Attorney Docket No.: 1023-333US01 / P-11797.00,"~~

Please replace paragraph [0055] of the originally-filed application with the following amended paragraph:

[0055] In some embodiments, control module 30 includes telemetry circuitry 64, which enables processor 60 to communicate with other devices such as an external programming device via radio-frequency communication. Telemetry circuitry 64 may include a telemetry coil (not illustrated), which may be fabricated of windings of copper or another highly conductive material. The configuration and location of telemetry coil within housing 36 may be dictated by the available space within housing 36 and the communication requirements of telemetry circuitry 64. Further detail regarding the configuration and location of the telemetry coil may be found in a commonly-assigned U.S. Patent Application Serial No. 10/730,877, entitled "LOW-PROFILE IMPLANTABLE MEDICAL DEVICE," ~~assigned Attorney Docket No.: 1023-335US01 / P-11801.00,"~~